

**AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) A method for improving radiostability of a <sup>18</sup>F-fluor-deoxy-glucose (<sup>18</sup>F-FDG)-solution during autoclaving, which the method comprising comprises the steps of:

- a) providing a <sup>18</sup>F-fluor-deoxy-glucose (<sup>18</sup>F-FDG)-solution, [[and]]  
b) adding at least one buffer based on a weak acid to the <sup>18</sup>F-fluor-deoxy-glucose (<sup>18</sup>F-FDG)-solution, wherein the buffer is selected from the group consisting of citrate, acetate, ascorbate and combinations thereof; and,  
c) autoclaving the buffered <sup>18</sup>F-fluor-deoxy-glucose (<sup>18</sup>F-FDG)-solution.

2. (Previously Presented) The method according to claim 1, wherein the buffered <sup>18</sup>F-FDG-solution maintains radiochemical purity after being autoclaved, thus rendering the solution suitable for medical applications.

3-4. (Cancelled)

5. (Currently Amended) The method according to claim [[4]] 1, wherein the pH of the citrate buffer is lower than 5.5.

6. (Withdrawn – Currently Amended) The method according to claim [[4]] 1, wherein the pH of the acetate buffer is between 3.0 and 5.5.

7. (Withdrawn – Currently Amended) The method according to claim [[4]] 1, wherein the pH of the ascorbate buffer is between 3.0 and 5.5.

8. (Withdrawn – Currently Amended) [[A]] The method of preparing a sterile <sup>18</sup>F-fluor-deoxy-glucose (<sup>18</sup>F-FDG) solution by autoclaving a according to claim 1, wherein the buffered <sup>18</sup>F-fluor-deoxy-glucose (FDG)-solution is autoclaved at a temperature between 110°C and 145°C.

9. (Withdrawn – Currently Amended) [[A]] The method of preparing a sterile-<sup>18</sup>F-fluor-deoxy-glucose (<sup>18</sup>F-FDG)-solution by autoclaving a according to claim 1, wherein the buffered <sup>18</sup>F-fluor-deoxy-glucose (FDG)-solution is autoclaved at a temperature between 130°C and 140°C.

10. (Withdrawn – Currently Amended) [[A]] The method of preparing a sterile-<sup>18</sup>F-fluor-deoxy-glucose (<sup>18</sup>F-FDG)-solution by autoclaving a according to claim 1, wherein the buffered <sup>18</sup>F-fluor-deoxy-glucose (FDG)-solution is autoclaved at a temperature of 134°C.

11. (Withdrawn – Currently Amended) The method according to claim 8, wherein [[the]] autoclaving ~~process~~ is performed for a period of 1 to 30 minutes.

12. (Withdrawn – Currently Amended) The method according to claim 8, wherein [[the]] autoclaving ~~process~~ is performed for a period of 1 to 10 minutes.

13. (Withdrawn – Currently Amended) The method according to claim 8, wherein [[the]] autoclaving ~~process~~ is performed for a period of 2 to 5 minutes.

14. (Withdrawn – Currently Amended) A <sup>18</sup>F-fluor-deoxy-glucose (<sup>18</sup>F-FDG)-solution with improved physical/chemical characteristics obtained by the method of claim 1.

15. (Withdrawn) A <sup>18</sup>F-fluor-deoxy-glucose (<sup>18</sup>F-FDG)-solution obtained by the method of claim 8.

16. (Currently Amended) The method of claim [[1]] 2, wherein the radiochemical purity of the buffered <sup>18</sup>F-fluor-deoxy-glucose (<sup>18</sup>F-FDG)-solution is at least 95%.

17. (Currently Amended) The method accordingly to claim 16, wherein the radiochemical purity of the buffered <sup>18</sup>F-FDG-solution is at least about 95% eight hours after being autoclaved.

18. (Previously Presented) The method according to claim 5, wherein the pH of the citrate buffer is between 2 and 5.5.